

In the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

- 1 1. (Currently Amended) An input/output (I/O) bridge device,  
2 comprising:  
3 a parallel input port ;  
4 a serial output port and a plurality of parallel output ports;  
5 a controller coupled to the parallel input port and configured  
6 to detect whether the input/output (I/O) bridge device is  
7 connected to a docking station,  
8 to route signals from the parallel input port to ~~either~~  
9 the serial ~~output~~ output port ~~or~~ if the input/output (I/O)  
10 bridge device is connected to a docking station; and  
11 to route signals from the parallel input port to the at  
12 least one of the parallel output ports, or both if the  
13 input/output (I/O) bridge device is not connected to a docking  
14 station; and  
15 serialization logic coupled to the controller and serial  
16 output port, the serialization logic receiving as input an I/O  
17 signal in a parallel format from the parallel input port and  
18 outputting the I/O signal in a serial format.
- 1 2. (Original) The I/O bridge device according to Claim 1, wherein  
2 the I/O bridge device further comprises a plurality of legacy input  
3 / output ports adapted to couple to legacy connectors of a  
4 computer.
- 1 3. (Original) The I/O bridge device according to Claim 1 further  
2 comprising an LPC interface coupled to the controller and providing  
3 thereto routing control signals.

1 4. (Original) The LPC I/O bridge device according to Claim 1,  
2 further comprising:

3 a packetizer/depacketizer coupled to the serialization logic  
4 and controller.

1 5. (Original) The I/O bridge device according to Claim 4, further  
2 comprising a system management (SM) bus controller, and floppy  
3 drive controller coupleable to the controller.

1 6. (Original) The I/O bridge device according to Claim 5, further  
2 comprising configuration and control registers, a watchdog timer, a  
3 fan speed control and monitor, and an Advanced Configuration and  
4 Power Interface (ACPI) coupled to the LPC controller.

1 7. (Original) The I/O bridge device according to Claim 1, wherein  
2 at least the controller and serialization logic reside on a single  
3 integrated circuit.

1 8. (Currently Amended) A portable computer including a plurality  
2 of I/O ports and a low pin count (LPC) input/output (I/O) bridge  
3 device coupled to an I/O bus, and a docking connector coupled to  
4 the LPC I/O bridge device, wherein the LPC I/O bridge device  
5 comprises:

6 an LPC controller coupled to the I/O bus and docking connector  
7 adapted

8 to detect whether the portable computer is coupled to a  
9 docking station via the docking connector, and

10 to route data transmissions from the I/O bus to the I/O  
11 ports if the portable computer is not coupled to a docking  
12 station via the docking connector, and

13           to route data transmissions from the I/O bus to the  
14   docking connector,~~or both~~ if the portable computer is coupled  
15   to a docking station via the docking connector; and  
16           serialization logic coupled to the LPC controller adapted  
17   to serialize the data transmissions routed to the docking  
18   connector.

1   9. (Original) The portable computer according to Claim 8, wherein  
2   the I/O ports comprise USB, AC-97, serial ports, floppy disk  
3   controller (FDC), IEEE 1284, IEEE 1394 or memory expansion  
4   interface ports.

1   10. (Original) The portable computer according to Claim 9, wherein  
2   the memory expansion interface ports are adapted to interface with  
3   flash, multi-media card (MMC), smart media, smart card, or memory  
4   stick memory devices.

1   11. (Original) The portable computer according to Claim 8, wherein  
2   the portable computer comprises a notebook computer, personal  
3   digital assistant (PDA), or wearable computer.

1   12. (Original) The portable computer according to Claim 8, wherein  
2   the docking connector comprises less than 200 pins.

1   13. (Original) The portable computer according to Claim 12, wherein  
2   the docking connector comprises less than 10 pins.

1   14. (Original) The portable computer according to Claim 8, wherein  
2   the LPC I/O bridge device further comprises a  
3   packetizer/depaketizer coupled to the serialization logic and LPC  
4   controller, and a system management (SM) bus controller, floppy  
5   drive controller,

6 configuration and control registers, a watchdog timer, a fan  
7 speed control and monitor, and an Advanced Configuration and Power  
8 Interface (ACPI) coupled to the LPC controller.

15 to 18. (Cancelled)

1 19. (Currently Amended) A docking system, comprising:  
2 a portable computer including  
3 a plurality of I/O ports and a low pin count (LPC)  
4 input/output (I/O) bridge device coupled to an I/O bus, and a  
5 docking connector coupled to the LPC I/O bridge device; and  
6 a docking station coupleable to the docking connector, wherein  
7 the portable computer LPC I/O bridge device comprises:  
8 an LPC controller coupled to the I/O bus and docking  
9 connector adapted  
10 to detect whether the portable computer is coupled  
11 to a docking station via the docking connector, ~~and~~  
12 to route data transmissions from the I/O bus to the  
13 I/O ports if the portable computer is not coupled to a  
14 docking station via the docking connector, and  
15 to route data transmissions from the I/O bus to the  
16 docking connector, ~~or both~~ if the portable computer is  
17 coupled to a docking station via the docking connector;  
18 and  
19 serialization logic coupled to the LPC controller adapted  
20 to serialize the data transmissions routed to the docking  
21 connector; wherein the docking station is adapted to receive  
22 the serialized data transmissions from the LPC I/O bridge  
23 device through the portable computer docking connector.

1 20. (Original) The docking system according to Claim 19, wherein  
2 the docking connector comprises less than 10 pins.

1 21. (Original) The docking system according to Claim 19, wherein  
2 the I/O ports comprise USB, AC-97, Ethernet, or IEEE 1284, IEEE  
3 1394, or memory expansion interface ports, wherein the portable  
4 computer comprises a notebook computer, personal digital assistant  
5 (PDA), or wearable computer, and wherein the docking station  
6 comprises a port replicator or expansion chassis.

1 22. (Original) The docking station according to Claim 21, wherein  
2 the memory expansion interface ports are adapted to interface with  
3 flash, multi-media card (MMC), smart media, smart card, or memory  
4 stick memory devices.

1 23. (Original) The docking system according to Claim 19, wherein  
2 the portable computer LPC I/O bridge device comprises a single  
3 integrated circuit.

1 24. (Original) The docking system according to Claim 19, wherein  
2 the docking station includes a LPC I/O bridge device adapted to  
3 handle the serialized data transmissions from the portable  
4 computer.

1 25. (Currently Amended) A method of bridging input/output (I/O)  
2 data transmissions between a portable computer and a docking  
3 station using a docking connector, the portable computer having a  
4 plurality of legacy ports coupled to an I/O bus, a low pin count  
5 (LPC) I/O bridge device coupled to the I/O bus, and a docking  
6 connector coupled to the LPC I/O bridge device, the method  
7 comprising:  
8 detecting whether the portable computer is coupled to the  
9 docking station via the docking connector;  
10 ~~receiving information from an LPC interface;~~

11        ~~determining from the LPC interface information whether to~~  
12        route data transmissions from the I/O bus to the legacy ports if  
13        the portable computer is not connected to the docking station via  
14        the docking connector,  
15        determining to route data transmissions from the I/O but to  
16        the docking connector, ~~or both~~ if the portable computer is  
17        connected to the docking station via the docking connector;  
18        serializing data transmissions to be routed to the docking  
19        connector; and  
20        routing data transmissions as determined.

1    26.    (Original) The method according to Claim 25, wherein the  
2    portable computer LPC I/O bridge device includes an LPC controller  
3    adapted to detect docking and route data transmissions.

1    27.    (Original) The method according to Claim 25, wherein the  
2    docking connector comprises less than 10 pins.